Title (en)

AN ADD AND DROP NODE FOR AN OPTICAL WDM NETWORK HAVING TRAFFIC ONLY BETWEEN ADJACENT NODES

Title (de)

EINFÜGE-AUSFÜGE-KNOTEN FÜR EIN OPTISCHES WDM NETZWERK MIT VERKEHR NUR ZWISCHEN BENACHBARTEN KNOTEN

Title (fr)

NOEUD D'ADJONCTION ET D'INSERTION DESTINE A UN RESEAU MRL OPTIQUE AYANT UN TRAFIC UNIQUEMENT ENTRE LES NOEUDS VOISINS

Publication

EP 1088410 A1 20010404 (EN)

Application

EP 99930086 A 19990608

Priority

- SE 9900994 W 19990608
- SE 9802071 A 19980610

Abstract (en)

[origin: WO9965165A1] An optical fiber network of WDM type comprises two fibers (7e, 7w) which carry light signals propagating in opposite direction and which are arranged in a ring configuration. In the ring always one link between two neighbouring nodes is inactive but provides a standby-link which is used for failure in another link, in the case of which the previously inactive link is made active. An add and drop (1) node used in the network for only traffic between neighbouring nodes has band blocking filters (31e, 31w) connected in a fiber (7e, 7w) between a drop coupler (17e', 17w') and an add coupler (23e', 23w'). A drop coupler takes out equal shares of the light power to be received through switches (33e, 33w) and bandpass filters (35e, 35w) in receivers (11e, 11w). The add couplers add new wavelength channels produced in transmitters (13e, 13w) in the node through multiplexers (37e, 37w) and switches (39e, 39w). The switches (33e, 33w; 39e, 39w) are used for receiving and transmitting on the wavelength channels in correct directions depending on the location of the inactive link. Thus, the positions of two of the switches have to be changed when the inactive link is one of the two links directly connected to the node. Such a node has a minimum of in-line components and particularly a minimum of in-line filtering components.

IPC 1-7

H04B 10/213; H04J 14/02

IPC 8 full level

H04B 10/275 (2013.01); **H04J 14/02** (2006.01); H04Q 11/00 (2006.01)

CPC (source: EP US)

H04B 10/275 (2013.01 - EP US); **H04J 14/0204** (2013.01 - EP US); **H04J 14/0205** (2013.01 - EP US); **H04J 14/021** (2013.01 - EP US); **H04J 14/0213** (2013.01 - EP US); **H04J 14/0283** (2013.01 - EP US); **H04J 14/0289** (2013.01 - EP US); H04Q 2011/0083 (2013.01 - EP US); H04Q 2011/0092 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9965165 A1 19991216; AT E322772 T1 20060415; AU 4669599 A 19991230; DE 69930742 D1 20060518; EP 1088410 A1 20010404; EP 1088410 B1 20060405; SE 520876 C2 20030909; SE 9802071 D0 19980610; SE 9802071 L 20000210; US 6525852 B1 20030225

DOCDB simple family (application)

SE 9900994 W 19990608; AT 99930086 T 19990608; AU 4669599 A 19990608; DE 69930742 T 19990608; EP 99930086 A 19990608; SE 9802071 A 19980610; US 32838399 A 19990609